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EXAMINER

NGUYEN, PHILLIP H

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/712,890	Applicant(s) ADDINGTON ET AL.	
	Examiner Phillip H. Nguyen	Art Unit 2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-20,22-29,34,35 and 59-72 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-20,22-29,34,35 and 59-72 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07012008,08082008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed 7/1/2008.
2. Claims 1, 3-20, 22-29, 34, 35, and 59-72 are pending and have been considered below.

Allowable Subject Matter

3. The indicated allowability of claims 1, 3-20, 22-29, 34, and 35 is withdrawn in view of the newly discovered reference(s) to Hendricks et al. (USPN 5,600,364), Peng (USPN 7,007,049) and other references. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 67-72 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 67 and 69 recite a system but it appears reasonable to interpret this system by one of ordinary skill in the art as software. This system must include at least one hardware component (i.e. a processor or a memory). All their dependent claims are suffered the same rejection.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 63-66 and 69-72 are rejected under 35 U.S.C. 102(b) as being anticipated by Hendricks et al. (USPN 5,600,364).

As per claim 63:

Hendricks teaches

loading a host protocol file associated with a type of host (see at least col. 12:8-10 "*The set top terminal 220 receives compressed program (i.e. a host protocol file) and control signals (i.e. host profile file) from the cable headend 208*");

loading a host profile file associated with the type of host (see at least col. 12:8-10 "*The set top terminal 220 receives compressed program (i.e. a host protocol file) and control signals (i.e. host profile file) from the cable headend 208*");

processing the host profile file to provide a user-interface for selecting at least one service related parameter associated with a service provided to a host on a cable network (see at least col. 12:19-22 "*After processing certain signals received from the cable headend 208, the set top terminal 220 is able to store*

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menu templates for creating menus that are displayed on a subscriber's television by using an array of menu templates");

receiving a user input to determine the at least one service related parameter (see at least col. 12:47-50 "The set top terminal 220 then displays specific menus on the subscriber's television screen that corresponding to the inputs the subscriber selects");

using the host protocol file and the at least one service related parameter to generate a host configuration message wherein the format of the host configuration message is specific to said host type (see at least col. 12:51-57 "*If the subscriber selects a specific program from a menu, the set top terminal 220 determines on which channel the program is being shown, demultiplexes and extracts the single channel transmitted from the cable headend 208. The set top terminal 220 then decompresses the channel and, if necessary, converts the program signal to an analog NTSC signal to enable the subscriber to view the selected program*"); and

associating the host configuration message with the type of host (see at least col. 12:51-57 "*If the subscriber selects a specific program from a menu, the set top terminal 220 determines on which channel the program is being shown, demultiplexes and extracts the single channel transmitted from the cable headend 208. The set top terminal 220 then decompresses the channel and, if necessary, converts the program signal to an analog NTSC signal to enable the subscriber to view the selected program*").

As per claim 64:

Hendricks further teaches

wherein the type of host is associated with a host manufacturer and a model of the host manufacturer (see at least col. 30:1-2 "...*set top terminal type, software version and set top terminal identification/serial number*").

As per claim 65:

Hendricks further teaches

wherein the host protocol file comprises a plurality of protocol messages capable of recognition by the type of host (see at least col. 12:9 "*compressed program*").

As per claim 66:

Hendricks further teaches

wherein the configuration message is an executable command on a processor in a host (see at least col. 12:56 "*analog NTSC signals*").

As per claim 69:

Hendricks further teaches

an enhanced services system operatively connected to a communications network, receiving and storing at least one host software file associated with a

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host type in a database, wherein the database stores at least one host address associated with the host software file (see at least col. 29:45-53 "*the network controller 214 uses several databases (indicated at 226) that are accessed during network control operations. These databases 226 are identified in FIG. 11 and include: (1) the Viewer Profile database 314, (2) the Account/Billing database 316, (3) the Program Library database 318,...*"); and

a cable distribution network having a headend, operatively connected to the enhanced services system at the headend for receiving the host file from the enhanced services system and transmitting the host software file to a host associated with the host address wherein the host is associated with said host type and said enhanced services system stores an association between said host type and said host address (see at least *FIG. 1*).

As per claim 70:

Hendricks further teaches

wherein the host type comprises a host manufacturer identifier and a model identifier of the host manufacturer (see at least col. 30:1-2 "*file includes set top terminal type, software version and set top terminal identification/serial number*").

As per claim 71:

Hendricks further teaches

wherein the cable distribution network supports two-way communication
(see at least col. 17:16 "*Using two-way communication*").

As per claim 72:

Hendricks further teaches

wherein the database further stores an indication of the host software file transmitted to the host (see at least col. 11:27-29 "*Status and billing information is sent from the set top terminal to the network controller at the cable headend...in alternative system embodiments, the operation center 202 and the statistical and billing sites are collocated*").

Claim Rejections - 35 USC § 102/103

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 23-25, 27, 28, 59, and 67 are rejected under 35 U.S.C. 102(e) as being anticipated by Peng (USPN 7,007,049).

As per claim 23:

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Peng teaches

receiving a host software file at a host file database (see at least col. 7:52-53 "...*distributes approved software packages to upgrade servers*"), the host software file for configuring a host wherein the host software file contains messages for interacting with the host on a cable distribution network wherein the host software file is associated with a specific host manufacturer and a model of the specific host manufacturer (see at least col. 5:48-53 "*The electronic files 110 and 112 include software files including dynamic link library files, shared object files, embedded software components (EBSCs), firmware files, executable files, data files including hex data files, system configuration files, and files including personal use data*");

maintaining a first list of at least one enhanced services system, the enhanced services system further associated with a destination address and the host software file (see at least col. 8:17-19 "*the server 204 sends a user notification to notify the client device user that these are software components available for updating*" - in order for the upgrade server to send a notification to the user, a list of users must be existed or maintained by either upgrade server, upgrade manager, billing server, authentication server or logging server; see also FIG. 2 - "*Billing Server*", "*Logging Server*" and "*Authentication Server*" must also store clients records);

maintaining a second list of the destination address associated with a set of communication parameters, the set of communication parameters including authentication information (see at least FIG. 2 – “*Authentication Server*”);

establishing a communications path between the host file database and the enhanced services system, the communications path using the destination address (see at least FIG. 2);

authenticating the host file database to the enhanced services system using in part the set of communications parameters (see at least col. 8:28-31 “*the upgrade server 204 authenticates and authorizes the user and/or requesting device*”);

transmitting the host software file from the host file database to the enhanced services system (see at least col. 8:24-26 “*the upgrade server 204 uses the original handset data communication protocol to send the delta file to the requesting handset*”);

receiving a confirmation of the receipt of the host software file from the enhanced services system (see at least col. 8:32-37 “*Following authentication the upgrade server 204, as the manager of client device configuration data, identifies the current versions of embedded software components of the requesting device 104, identifies and transfers appropriate delta files to the request device 104, logs the status of the upgrade transaction, and reports the results to the upgrade manager 205*); and

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recording an indication of the confirmation of the receipt of the host software file, the indication recorded in the host file database (see at least col. 8:32-37 "*Following authentication the upgrade server 204, as the manager of client device configuration data, identifies the current versions of embedded software components of the requesting device 104, identifies and transfers appropriate delta files to the request device 104, logs the status of the upgrade transaction, and reports the results to the upgrade manager 205*").

As per claim 23 (An alternative interpretation):

Peng further teaches

receiving a host software file at a host file database (see at least col.7:23-24 "...submits embedded software packages to the software component certification server"), the host software file for configuring a host wherein the host software file contains messages for interacting with the host on a cable distribution network wherein the host software file is associated with a specific host manufacturer and a model of the specific host manufacturer (see at least col. 5:48-53 "*The electronic files 110 and 112 include software files including dynamic link library files, shared object files, embedded software components (EBSCs), firmware files, executable files, data files including hex data files, system configuration files, and files including personal use data*");

maintaining a first list of at least one enhanced services system, the enhanced services system further associated with a destination address and the

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host software file (*In order for the distributors to send the new release software package to the certification servers, a list of certification servers (names, IP addresses, etc.) must be maintained by the distributors. Therefore, it is inherent.*);

establishing a communications path between the host file database and the enhanced services system, the communications path using the destination address (see at least *FIG. 2* – communication between certification server 203 and upgrade server 204);

transmitting the host software file from the host file database to the enhanced services system (see at least col. 7:52-53 “...*distributes approved software packages to upgrade servers*”).

Peng does not explicitly teach

maintaining a second list of the set of communication parameters including authentication information;

authenticating the host file database to the enhanced services system using in part the set of communications parameters;

receiving a confirmation of the receipt of the host software file from the enhanced services system; and

recording an indication of the confirmation of the receipt of the host software file, the indication recorded in the host file database.

However, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to recognize that an authentication process (see col. 8:29-30) and confirmation of the receipt of the software (see col. 36-37) are performed in Peng's approach in order to modify Peng's invention. One would have been motivated to modify to authenticate the upgrade server prior transferring the approved software packages to allow only authorized server to receive the software packages and to further to log the status of the transaction and provide a report to indicate the transaction is completed.

As per claim 24:

Peng further teaches

storing the host software file in a second database located at the enhanced services system (see at least *FIG. 2* - the approved software packages are stored at the upgrade server for distributing to the clients);

transmitting a copy of the host software stored in the second database to a host (see at least col. 8:24-26 "*the upgrade server 204 uses the original handset data communication protocol to send the delta file to the requesting handset*");

receiving a confirmation of receipt of the software from the host (see at least col. 8:32-37 "*Following authentication the upgrade server 204, as the manager of client device configuration data, identifies the current versions of embedded software components of the requesting device 104, identifies and*

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transfers appropriate delta files to the request device 104, logs the status of the upgrade transaction, and reports the results to the upgrade manager 205); and recording an indication in the second database regarding the software downloaded to the host (see at least col. 8:32-37 "Following authentication the upgrade server 204, as the manager of client device configuration data, identifies the current versions of embedded software components of the requesting device 104, identifies and transfers appropriate delta files to the request device 104, logs the status of the upgrade transaction, and reports the results to the upgrade manager 205).

As per claim 25:

Peng further teaches

transmitting the host software file from the enhanced services system to the host; and executing the host software in the host (see at least col. 8:51-56 "Upon execution, the upgrade client 130 automatically detects the remote change of any embedded software components, notifies users of an embedded software component upgrade, an upgrades a software component based on the carriers and/or users control").

As per claim 27:

Peng further teaches

wherein the transmitting of the host software file from the host file database uses the Internet (see at least *FIG. 2*).

As per claim 28:

Peng further teaches

wherein the host software file comprises at least one from the group of host protocol file, host profile file, host data file, and host configuration message set file (see at least col. 5:48-53 "*The electronic files 110 and 112 include software files including dynamic link library files, shared object files, embedded software components (EBSCs), firmware files, executable files, data files including hex data files, system configuration files, and files including personal use data*").

As per claim 59:

Peng teaches

receiving a host file associated with a host type associated with a specific host manufacturer and a model associated with the specific host manufacturer (see at least col. 7:52-53 "...*distributes approved software packages to upgrade servers*"), wherein the host file comprises a host protocol file comprising protocol message format information for communicating with the host type and a host profile file indicating capabilities of the host type (see at least col. 5:48-53 "*The electronic files 110 and 112 include software files including dynamic link library*

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files, shared object files, embedded software components (EBSCs), firmware files, executable files, data files including hex data files, system configuration files, and files including personal use data");

determining an enhanced services system to receive the host software file (see at least col. 8:28-31 *"the upgrade server 204 authenticates and authorizes the user and/or requesting device"*);

establishing a connection from the enhanced services system to a host file database (see at least FIG. 2);

authenticating the enhanced services system to the host file database (see at least col. 8:28-31 *"the upgrade server 204 authenticates and authorizes the user and/or requesting device"*);

transferring host file from the host file database to the enhanced services system (see at least col. 8:24-26 *"the upgrade server 204 uses the original handset data communication protocol to send the delta file to the requesting handset"*); and

recording an indication of the date and time associated with the transferring of the host file to the enhanced services system (see at least col. 8:32-37 *"Following authentication the upgrade server 204, as the manager of client device configuration data, identifies the current versions of embedded software components of the requesting device 104, identifies and transfers appropriate delta files to the request device 104, logs the status of the upgrade transaction, and reports the results to the upgrade manager 205).*

As per claim 67:

Peng further teaches

a data processing system transmitting a host software file, the data processing system comprising a database capable of receiving and storing the host software file and maintaining an association of the host software file with a host manufacturer, the database further maintaining an association of the host software file with a specific host model of the host manufacturer, the database storing a certification file associated with the host software file, the database associating the host software file with an enhanced services system (see at least col. 7:46-54 "*The software component certification server 203 also receives software component submission request from the software component distributor, provides notification of approved/decline of new software packages to submitting upgrade servers, provides disk management for submitted and approved software packages, and repackages and distributes approved software packages to upgrade servers*" - Note: the approved software packages themselves can be a certification file); and

a communications network, operatively connected to the data processing system, receiving the host software file from the data processing system and transferring the host software file to the enhanced services system (see at least col. 8:24-27 "*upgrade server 204 uses the original handset data communication protocol to send the delta file to the requesting handset*").

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 3-6, 8, 10, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peng (USPN 7,007,049), in view of Schaffer (USPN 5,870,539).

As per claim 1:

Peng teaches

producing a host software file by a host software manufacturer (see at least col. 7:10-15 "*The software component distributor 202 of an embodiment provides a web-based user interface by which software providers package and release new embedded device software components such as an improved MP3 drive, an upgraded Java 2 platform, Micro Edition (J2ME) Mobile Information Device Profile (MIDP) library, or a feature-added address book application*");

providing the host software file from the host software manufacturer to a certification entity (see at least col. 7:23-24 "...*submits embedded software packages to the software component certification server*");

testing the operation of the host software file by the certification entity (see at least col. 7:42-53 "...provides notification of approval/decline of new software packages to submitting upgrade servers...");

certifying the host software file for operation in a host wherein certifying the host software file for operation in a host comprises certifying the host software file for execution on a host associated with a specific host manufacturer and a model associated with the specific host manufacturer (see at least col. 7:42-53 "*The software component certification server 203 provides an interface to device manufacturers and, thus, receives new device information on embedded software packages from device manufacturers. The software component certification server 203 also receives software component submission requests from the software component distributor, provides notification of approval/decline of new software packages to submitting upgrade servers, provides disk management for submitted and approved software packages, and repackages and distributes approved software packages to upgrade servers*");

establishing a first connection from a data processing system to a host file database (see at least FIG. 2);

transferring the host software file from the data processing system to the host file database after the host software file has been certified by the certification entity (see at least col. 7:52-53 "*The software component certification server 203...distributes approved software packages to upgrade servers*");

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identifying an enhanced services system to receive the host software file (see at least col. 8:29-32 *"the upgrade server 204 authenticates and authorizes the user and/or requesting device, and verifies prerequisite capabilities and limitations of the requesting device"*);

establishing a second connection from the host file database to the enhanced services system (see at least FIG. 2); and

transferring the host software file from the host file database to the enhanced services system (see at least col. 8:24-26 *"the upgrade server 204 uses the original handset data communication protocol to send the delta file to the requesting handset"*).

More specific, Schaffer teaches

testing the operation of the host software file by the certification entity (see at least col. 1:33-41 *"For each assertion, the designer then develops a set of software "test cases." The test cases exercise as many as possible of the code paths in the target products to prove the validity of the assertions. If each assertion is proven for a particular computer model and operating system, the software product is considered to be fully tested for that particular system. Thus, for a particular software product, typically the target product is tested on various combinations of computer models and operating systems on which the product may be run"*).

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Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Peng's approach to include the well known testing technique taught by Schaffer. One would have been motivated to test the software packages prior transferring to the upgrade server in order to ensure the software packages are compatible with a particular client machine.

Neither Peng nor Williams explicitly teach

receiving confirmation of receipt of the host software file from the host file database.

However, official notice is taken that confirming of receipt of the host software file is well known in the art at the time the invention was made. One would have been motivated to modify in order to indicate that the approved software packages are successfully transferred. Furthermore, one of the ordinary skills in the art at the time the invention was made would have been motivated to use the same confirmation technique taught by Peng (see col. 8:28) to confirm the receipt of the approved software packages at the upgrade server.

As per claim 3:

Peng further teaches

wherein the data processing system is operated by the certification entity or the host software manufacturer (see at least col. 7:52-53 "*The software*

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component certification server 203...distributes approved software packages to upgrade servers").

As per claim 4:

Peng further teaches

wherein the host software includes at least one of a host protocol file, host data file, host profile file, service data file, or host configuration message set file (see at least col. 5:48-53 "*The electronic files 110 and 112 include software files including dynamic link library files, shared object files, embedded software components (EBSCs), firmware files, executable files, data files including hex data files, system configuration files, and files including personal use data*").

As per claim 5:

Peng further teaches

wherein the host data file contains software objects for execution in the host (see at least col. 5:48-53 "*The electronic files 110 and 112 include software files including dynamic link library files, shared object files, embedded software components (EBSCs), firmware files, executable files, data files including hex data files, system configuration files, and files including personal use data*").

As per claim 6:

Peng further teaches

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wherein the host profile file indicates one of a plurality of resources incorporated in the host (see at least col. 5:48-53 "*The electronic files 110 and 112 include software files including dynamic link library files, shared object files, embedded software components (EBSCs), firmware files, executable files, data files including hex data files, system configuration files, and files including personal use data*"), wherein at least one of the resources processes digital video signals (see at least FIG. 10 and 14).

As per claim 8:

Peng does not explicit teach

authenticating the data processing system to the host file database prior the transferring the host software file.

However, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to recognize that Peng's approach performs authenticating on the client devices to only allow the authorized user to receive the software and therefore to modify Peng's approach to include authenticating the upgrade server before transferred the approved software packages to only allow the authorized upgrade server to receive the approved software packages. One would have been motivated to modify in order to allow only the authorized updated server to receive the approved software packages.

As per claim 10:

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Peng further teaches

recording an indication in the host file database of the transfer of the host software file to the enhanced services system (see at least col. 8:36-37 *"logs the status of the upgrade transaction, and reports the results to the upgrade manager 205"*).

As per claim 12:

Peng further teaches

maintaining an enhanced services system communication file comprising an address associated with the enhanced services system, communication parameters for use in transferring the host software file to the enhanced services system, and authentication data associated with the enhanced services system (see at least *FIG. 2 – "Existing Billing Server", "Existing Logging Server", and "Existing Authentication Server"*).

As per claim 13:

Peng further teaches

wherein the step of establishing a second connection from the host file database to the enhanced services system comprises establishing a second connection from the host file database to the enhanced services system using the communication parameters maintained in the communication file (see at least *FIG. 2*).

11. Claims 14, 15, and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peng (USPN 7,007,049).

As per claim 14:

Peng further teaches

producing host software by a host software manufacturer to control a host (see at least col. 7:10-15 "*The software component distributor 202 of an embodiment provides a web-based user interface by which software providers package and release new embedded device software components such as an improved MP3 drive, an upgraded Java 2 platform, Micro Edition (J2ME) Mobile Information Device Profile (MIDP) library, or a feature-added address book application*");

providing the host software to a certification entity (see at least col.7:23-24 "...submits embedded software packages to the software component certification server");

receiving a certification indication from the certification entity indicating the host software is compatible with the host (see at least col. 7:42-53 "...provides notification of approval/decline of new software packages to submitting upgrade servers...");

establishing a connection from a first data processing system operated either by the host software manufacturer or the certification entity to a second

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data processing system, the second data processing system comprising a database for storing host software to be downloaded to a host (see at least *FIG. 2*);

transferring a copy of the host software comprising a host protocol file and a host profile file to the second data processing system after the certification entity has certified the host software (see at least col. 7:52-53 "*The software component certification server 203...distributes approved software packages to upgrade servers*");

identifying one of a plurality of an enhanced services systems to receive the host software (see at least col. 8:29-32 "*the upgrade server 204 authenticates and authorizes the user and/or requesting device, and verifies prerequisite capabilities and limitations of the requesting device*");

establishing a connection from the second data processing system to the one of the plurality of enhanced services systems (see at least *FIG. 2*); and

transferring the host software to the one of a plurality of enhanced services systems (see at least col. 8:24-26 "*the upgrade server 204 uses the original handset data communication protocol to send the delta file to the requesting handset*").

Peng does not explicitly teach

authenticating the first data processing system to the second the data processing system; and

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receiving a confirmation indication from the second data processing system of the receipt of the host software;

However, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to recognize the authentication technique of Peng's approach to authenticate user prior transferring the software. One would have been motivated to modify Peng's approach to allow the certification server to authenticate the upgrade server prior transferring the approved software package to prevent the unauthorized server to receive the approved software package and also to notify the receipt of the approved software package.

As per claim 15:

Peng further teaches

wherein the host protocol file comprises at least one host specific protocol message used by an enhanced services server to interact with the host (see at least col. 5:48-53 "*The electronic files 110 and 112 include software files including dynamic link library files, shared object files, embedded software components (EBSCs), firmware files, executable files, data files including hex data files, system configuration files, and files including personal use data*").

As per claim 17:

Peng further teaches

wherein the host protocol file contains a version number associated with the host protocol file (see at least col. 5:64-67 – col. 6:1-3 “*Contents of the delta file 116 provide an efficient representation of the byte-level differences between the new and the original files. The delta file 116 includes meta-data along with actual data of replacement and/or insertion operation that represent the differences between the new or current version of the associated file and previous versions of the file*”).

As per claim 18:

Peng further teaches

wherein the certification indication includes an identification associated with the host, the identification further associated with a specific host manufacturer and a model of the specific host manufacturer (see at least col. 7:42-53 “*The software component certification server 203 receives new device information on embedded software packages from device manufacturer... provides notification of approval/decline of new software packages to submitting upgrade servers...*” – an indication is provided to indicate that the new software packages are certified with the client).

As per claim 19:

Peng does not explicitly teach

wherein the host file database records a date and time of receipt of the host software, the certification indication, and the confirmation indication.

However, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Peng's approach to include in the status and report of the upgrade transaction the date and time or receipt of the software, certification indication, and confirmation indication for billing purposes. One would have been motivated to modify for the billing purposes.

As per claim 20:

Peng further teaches

wherein the host software file contains software objects capable of being executed in a consumer electronics host wherein the consumer electronics host processes digital multi-media signals (see at least col. 5:48-53 "*The electronic files 110 and 112 include software files including dynamic link library files, shared object files, embedded software components (EBSCs), firmware files, executable files, data files including hex data files, system configuration files, and files including personal use data*").

12. Claims 7, 9, 11, 16, 29, and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peng (USPN 7,007,049), in view of Hendricks et al. (USPN 5,600,364).

As per claim 7:

Peng does not explicitly teach

wherein the host profile file is used to create a user- interface in a configuration message set creation system that determines at least one host configuration message.

However, Hendricks teaches

wherein the host profile file is used to create a user- interface in a configuration message set creation system that determines at least one host configuration message (see at least col. 12:18-22 "*After processing certain signals received from the cable headend 208, the set top terminal 220 is able to store menu templates for creating menus that are displayed on a subscriber's television by using an array of menu templates*").

Therefore, it would have been obvious to one having an ordinary skill in the art the time the invention was made to modify Peng's approach to allow creating interface using the data file. One would have been motivated to do so in order to allow the client to interact with the device.

As per claim 9:

Peng further teaches

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authenticating the host file data base to the enhanced services system prior to transferring the host software to the host file database (see at least col. 8:29-32 "*the upgrade server 204 authenticates and authorizes the user and/or requesting device, and verifies prerequisite capabilities and limitations of the requesting device*").

As per claim 11:

Peng further teaches

recording a second indication in the host file database of the receipt of the host software file from the data processing system (see at least col. 8:29-32 "*the upgrade server 204 authenticates and authorizes the user and/or requesting device, and verifies prerequisite capabilities and limitations of the requesting device*").

As per claim 16:

Peng does not explicitly teach

wherein the host profile file indicates a host type comprising a specific host manufacturer and a model associated with the specific host manufacturer.

However, Hendricks teaches

wherein the host profile file indicates a host type comprising a specific host manufacturer and a model associated with the specific host manufacturer

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(see at least col. 29:60-67 – col. 30:1-2 “As shown in FIG. 12, the Viewer Profile database 314 includes: (i) a Set top ID File, (ii) a Subscriber Region File, (iii) a Customer ID File and (iv) a Viewer Log File, the latter three files being indicated generally as a file group 332. The Set top ID file 330, common to each of the databases comprising the network controller’s database 226, contains set top converter records with each record representing a unique set top terminal 220. Examples of information stored in this file includes set top terminal type, software version and set top terminal identification/serial number”).

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Peng' invention to include the teaching of Hendrick to allow the software file to include client identification/serial number. One would have been motivated to modify because the identification/serial number allows the software files link to a particular client.

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Peng’s approach to include the teaching of Hendricks. One would have been motivated to modify in order to fulfill the software distribution purpose.

As per claim 29:

Peng does not explicitly teach

wherein the step of establishing a communications path between the host file database and the enhanced services system is determined in part based on a time indicated in the communication parameters.

However, Hendricks teaches

wherein the step of establishing a communications path between the host file database and the enhanced services system is determined in part based on a time indicated in the communication parameters (see at least col. 8:60
"...information includes the date and time slot, and program category of the various programs")

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Peng's invention to include the teaching of Hendricks. One would have been motivated to modify to only allow the software file to be transferred at a certain date and time to a particular client to prevent from network to be overloaded.

As per claim 68:

Peng does not explicit teach

a cable distribution network operatively connected to the enhanced services system at a headend of the cable distribution network capable of receiving the host software file from the enhanced services system.

However, Hendricks teaches

a cable distribution network operatively connected to the enhanced services system at a headend of the cable distribution network capable of receiving the host software file from the enhanced services system (see at least *FIG. 1*).

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Peng's invention to include the teaching of Hendricks. One would have been motivated to modify in order to fulfill the purpose of distributing software.

13. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peng (USPN 7,007,049), in view of Narasimhalu et al. (USPN 6,058,383).

As per claim 22:

Peng does not explicitly teach

where the step of transferring the host software to the one of a plurality enhanced services systems further includes transferring a copy of the certification indication.

However, Narasimhalu teaches

where the step of transferring the host software to the one of a plurality enhanced services systems further includes transferring a copy of the certification indication (see at least col. 2:40 "*Trustworthiness of objects contained in a distribution package are certified by a trusted third party, called certification authority, in the form of a certificate. The certificate consists of a body and the certification authority's signature on the body based on a public key digital signature scheme*").

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Peng's approach to include the teaching of Narasimhalu. One would have been motivated to modify because it allows the user to verify the trust criteria of any individual or any subset of object specified by the package.

14. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. (USPN 5,600,364), in view of Peng (USPN 7,007,049).

As per claim 34:

Hendricks teaches

receiving a host software file associated with a specific host manufacturer and a model associated with the specific host manufacturer (see at least col. 8:29-31 "*At the operation center 202, television programs are received from external program sources in both analog and digital form*");

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determining an enhanced services system to receive the host software file by retrieving a file associating an enhanced services system with a plurality of host types, each host type comprising a specific host manufacturer identifier and a model identifier associated with the specific host manufacturer and determining if the host software file received matches one of the plurality of host types associated with the enhanced services system (see at least col. 9:9-18 "*The packaging process also accounts for any groupings by satellite transponder which are necessary. The operations center 202 may send different groups of program to different cable headends 208 and/or set top terminals 220. One way the operations center 202 may accomplish this task is to send different program packages to each transponder. Each transponder, or set of transponders, then relays a specific program package to specific cable headends 208 and/or set top terminals 220*" - in order to send a specific program package to specific cable headend, a list or file of headends must be maintained and retrieved) ;

establishing a connection from the enhanced services system to a host file database (see at least *FIG. 2*);

transferring the host software from the host file database to the enhanced services system (see at least col. 10:10-12 "*the cable headend 208 receives and further processes the signals before they are relays to each set top terminal 220*");

storing the host software file in a second database located at the enhanced services system (see at least col. 29:45-53 "*the network controller 214*

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uses several databases (indicated at 226) that are accessed during network control operations. These databases 226 are identified in FIG. 11 and include: (1) the Viewer Profile database 314, (2) the Account/Billing database 316, (3) the Program Library database 318,...");

transmitting at least a portion of the host software file stored in the second database to a host (see at least col. 12:8-10 "The set top terminal 220 receives compressed program and control signals from the cable headend 208");

receiving a confirmation of receipt of the software from the host (see at least col. 11:27-30 "Status and billing information is sent from the set top terminal 220 to the network controller 214 at the cable headend 208 and not directly to the operations center 202"); and

recording an indication in the second database regarding the software download to the host (see at least col. 11:27-30 "Status and billing information is sent from the set top terminal 220 to the network controller 214 at the cable headend 208 and not directly to the operations center 202").

However, Peng teaches

authenticating the enhanced services system to the host file database (see at least col. 8:28-31 "the upgrade server 204 authenticates and authorizes the user and/or requesting device").

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Hendricks's approach to include the teaching of Peng. One would have been motivated to modify in order to allow only the authorized devices to receive the software.

Neither Hendricks nor Peng teaches

recording an indication of the date and time associated with the transferring of the host software to the enhanced services system.

However, official notice is taken that recording an indication of the date and time (i.e. status) the software package has been transferred is well known in the art at the time the invention was made. Furthermore, by using the same technique of recording the status of transferring programs from the headend to the terminal, one can record the status (i.e. date and time) of transferring programs from operation center to the headends for account and billing information purposes.

15. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. (USPN 5,600,364), in view of Schaffer (USPN 5,870,539).

As per claim 35:

Hendricks does not explicitly teach

wherein the host software file is tested for operation on a specific manufacturer and host manufacturer's model.

However, Schaffer teaches

wherein the host software file is tested for operation on a specific manufacturer and host manufacturer's model (see at least col. 1:33-41 "*For each assertion, the designer then develops a set of software "test cases." The test cases exercise as many as possible of the code paths in the target products to prove the validity of the assertions. If each assertion is proven for a particular computer model and operating system, the software product is considered to be fully tested for that particular system. Thus, for a particular software product, typically the target product is tested on various combinations of computer models and operating systems on which the product may be run*").

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Peng's approach to include the well known testing technique taught by Schaffer. One would have been motivated to test the software packages prior transferring to the upgrade server in order to ensure the software packages are compatible with a particular client machine.

16. Claim 26 and 60-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peng (USPN 7,007,049), in view of Devanbu et al. (USPN 6,148,401).

As per claim 26:

Peng does not explicit teach

transmitting an indication of certification of the host software file; and
verifying in the enhanced services system that the indication of
certification has been received prior to transmitting a copy of the host software to
the host.

However, Devanbu teaches

transmitting an indication of certification of the host software file (see at
least col. 7:44-50 "*The administrator then sends a new authorization message to
the certifier. An authorization message causes the certifier to use a new or
updated version of certification instructions, and also provides information on
how to generate a certificate signifying that the new certification instructions have
been used to determine if a subject set possesses a particular property*"); and
verifying in the enhanced services system that the indication of
certification has been received prior to transmitting a copy of the host software to
the host (see at least col. 8:16-17 "*the provider distributes the software and
certificate by sending them to a host*")

Therefore, it would have been obvious to one having an ordinary skill in the art at
the time the invention was made to modify Peng's approach to include the teaching of

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Devanbu. One would have been motivated to modify in order to allow the host to determine if the software possesses the property.

As per claim 60:

Peng further teaches

communicating a software module associated with a brand and model of a consumer electronics host device to a host file database (see at least col.7:23-24 “...submits embedded software packages to the software component certification server”);

communicating the software module from the host file database to an enhanced services system, the enhanced services system comprising a server and a database for storing the software module, the server operatively connected to a cable distribution network (see at least col. 7:42-53 “...provides notification of approval/decline of new software packages to submitting upgrade servers...”);

detecting activation of a host, the host associated with the host manufacturer and further associated with a model of the host manufacturer, the host connected to the cable distribution network (see at least col. 8:17-27 “the server 204 sends a user notification to notify the client device user that there are software components available for updating...upon receiving confirmation from the handset users...”); and

transmitting the software module from the server to the host (see at least col. 8:24-27 “Upon receiving confirmation from the handset users, the upgrade

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server 204 uses the original handset data communication protocol to send the delta file to the requesting handset")..

Peng does not explicitly teach

communicating a certification indication associated with the software module to the host file database, the host file database recording the certification indication in association with the software module.

However, Devanbu teaches

communicating a certification indication associated with the software module to the host file database, the host file database recording the certification indication in association with the software module (see at least col. 8:15-19 "*The provider distributes the software with the certificate, In one embodiment, the provider distributes the software and certificate by sending them to a host*").

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Peng to distribute a certificate along with the software package. One would have been motivated to modify in order to indicate that the software package is certified.

As per claim 61:

Peng further teaches

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wherein detecting activation of a host is initiated by the receipt of a message from a host transmitted in a two-way cable network (see at least col. 8:17-27 *"the server 204 sends a user notification to notify the client device user that there are software components available for updating...upon receiving confirmation from the handset users..."*).

As per claim 62:

Peng further teaches

recording in an enhanced services server an indication signifying the transmittal of the software module from the server to the host (see at least col. 36-37 *"...logs the status of the upgrade transaction, and reports the results to the upgrade manager 205"*).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phillip H. Nguyen whose telephone number is (571) 270-1070. The examiner can normally be reached on Monday - Thursday 10:00 AM - 3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y. Zhen can be reached on (571) 272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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PN
9/11/2008

/Wei Y Zhen/

Supervisory Patent Examiner, Art Unit 2191

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